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November 8, 2002

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

Re: NSTAR Gas Company, D.T.E. 02-12

Dear Secretary Cottrell:

Enclosed for filing, please find NSTAR Gas Company's Initial Brief in the above-referenced case.

Thank you for your attention to this filing.

Sincerely,

Stephen H. August

Stephen H. August

Encl.

cc: Denise Desautels, Hearing Officer
Carol R. Wasserman, Esq.
Wilner Borgella, Jr. Esq.

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

Commonwealth Gas Company d/b/a NSTAR Gas Company	)	D.T.E. 02-12

INITIAL BRIEF OF NSTAR GAS COMPANY

Respectfully submitted,

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Dated: November 8, 2002

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INITIAL BRIEF OF NSTAR GAS COMPANY

I. INTRODUCTION

On February 4, 2002, in accordance with G.L. c. 164, §§ 69I et seq., Commonwealth Gas Company d/b/a NSTAR Gas Company ("NSTAR Gas" or the "Company") filed with the Department of Telecommunications and Energy (the "Department") its Load Forecast and Resource Plan for the five-year period November 1, 2001 through October 31, 2006 (the "Filing"). The Attorney General and the Division of Energy Resources intervened in the proceeding and the Department conducted evidentiary hearings in the case on October 8, 2002.

The Company presented three witnesses: Mary Novak, managing director, energy consulting services, DRI-WEFA, who testified concerning the Company's econometric forecast of gas demand over the forecast period; Robert Koster, gas supply planning analyst, who testified concerning the Company's forecast and planning standards; and Barbara Stamos, senior supply planning analyst, who testified on issues relating to the Company's supply planning process and supply plan. The evidentiary record consists of 162 exhibits and six responses to record requests.

The Company's Filing in this case complies with the Department's traditional forecast and supply plan requirements pursuant to G.L. c. 164, § 69I under the existing

market structure for gas companies in Massachusetts. The Company's forecast was based on an econometric forecast of gas demand that employed a detailed multiple regression analysis. The statistical results associated with the forecast demonstrate the model's strong predictive power and reliability in accurately representing future customer demands for gas over the five-year forecast period. In addition, as described infra, the Company quantitatively assessed and selected appropriate and cost-effective design-day and design-year planning standards based on a detailed study performed by Navigant Consulting, Inc. ("Navigant"). The Company's filing demonstrates that, over the entire forecast period, it has adequate resources to meet its firm customers' demand under normal-year, design-year and design-day planning standards.

II. BACKGROUND

NSTAR Gas is a Massachusetts corporation and a subsidiary of NSTAR, a Massachusetts business trust. The Company is engaged in the sale and distribution of natural gas to residential, commercial and industrial customers in a service territory that includes approximately 246,000 customers in a 1,067 square mile area of central, eastern and southeastern Massachusetts (Exh. NGC-1S, at 5).[1] In the split year 2000-2001 (November 1, 2000 through October 31, 2001), the Company had an average of 194,472 residential heating customers, 28,517 residential non-heating customers, 19,993 firm commercial customers, and 788 firm sales industrial sales customer (id., Tables G-1 to G-

[1] For purposes of the Company's forecast, customers are classified as commercial if their primary business activity is agriculture, wholesale trade, retail trade, finance, insurance, real estate and service industries. Customers are classified as industrial if their primary business activity is mineral industries, construction industries, manufacturing, transportation, communications and utilities (Exh. DTE 1-33).

3B).[2] In addition, the Company had an average of 6,061 firm transportation customers in the split year 2000-2001.

NSTAR Gas's service territory is divided into four major operating divisions: Worcester, Framingham, Cambridge and New Bedford. The Worcester and Framingham divisions are contiguous, but each is served primarily by a different interstate pipeline (Worcester is generally served by Tennessee Gas Pipeline Company ("Tennessee") and Framingham by Algonquin Gas Transmission Company ("Algonquin")). The Cambridge and New Bedford divisions are not contiguous with any other operating division of the Company. Cambridge and New Bedford are served by Algonquin.

The Company's forecasts of sendout by customer class are contained in Exh. NGC-1S, Tables G-1 to G-5. The Company projects a reduction in its total firm Company sendout from 37,023 BBtu in 2000-2001 to 35,173 BBtu in 2005-2006 (Table G-5). On January 11, 2000, the Department approved the Company's most recent Load Forecast and Resource Plan, for the period November 1, 1996 through October 31, 2001. Commonwealth Gas Company, D.T.E./D.P.U. 96-117 (2000).

III. DEVELOPMENT OF PLANNING STANDARDS

In this Filing, Navigant replicated the cost-benefit analysis previously performed by National Economic Research Associates ("NERA") in the Company's last load

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[2] The Company's commercial and industrial sales customers are currently disaggregated into three low-load-factor classes (G-41, G-42 and G-43) and three high-load-factor customer classes (G-51, G-52 and G-53). Rate G-41 is available to low-load-factor C&I customers using less than 10,000 therms of gas per year. Rate G-42 is available to low-load-factor C&I customers using at least 10,000 therms, but less than 100,000 therms of gas per year. Rate G-43 is available to low-load-factor customers consuming at least 100,000 therms of gas per year. Similarly, Rate G-51 is for high-load factor customers using less than 10,000 therms per year, Rate G-52 customers must consume at least 10,000 therms, but less than 100,000 therms annually, and Rate G-53 customers use at least 100,000 therms of gas per year. NSTAR Gas's six firm transportation tariffs correspond to its six C&I customer classes for sales service, using identical availability criteria. These tariffs are T-41, T-41, T-43, T-51, T-52 and T-53.

forecast and resource plan (D.T.E./D.P.U. 96-117). The Navigant analysis used updated NSTAR Gas load data, updated Effective Degree Day ("EDD") data, and updated gas cost data (the "Navigant Report"). In addition, consistent with the Department's directive in the Company's previous supply-plan case, Navigant evaluated the planning standards in light of gas industry changes and developed final recommendations for NSTAR Gas in view of those changes (Exh. NGC-1S, at 2). These changes include: (1) growth in the role of gas marketers; (2) increased liquidity in market centers downstream of traditional production areas; (3) the expansion of transportation options; and (4) the growth of eCommerce (id.).

Based on the results of the Navigant Report, which includes a cost-benefit analysis and a review of the Company's actual winter-weather experience, transportation options, and the increased flexibility to meet seasonal gas requirements over the course of the winter period, the Company identified an appropriate and cost-effective design-year planning standard of weather that occurs with a frequency of once in 33 years ("1:33") (Exh. NGC-1S, at 14-25). Similar analyses performed by Navigant concerning the Company's design-day planning standard indicate that, although marketplace options may exist to meet design-winter conditions, the market cannot be relied upon to meet design-day requirements, and therefore, no change to the design-day standard of once in 50 years ("1:50") is warranted at this time (id.).

Previously, the Company's design-year planning standard was based on a 1:50 year probability of occurrence, and its design-day standard was 1:50 (id. at 24-25). Based on the Company's review of the Navigant Report and overall changes in the gas industry (e.g., greater liquidity in market centers downstream of the production areas), the

Company believes that a design-winter standard of 1:33, rather than the former standard of 1:50, is reasonable.

Under design-day conditions, the Company must have access to sufficient firm capacity to ensure the deliverability of adequate supplies to the Company's city gate. In the Company's experience, the market has not yet matured to the point that the Company can rely on the availability of non-contracted for transportation capacity at the city gate during design-day weather conditions. Thus, based on the Company's review of the Navigant Report, the Company concludes that a design-day standard of 1:50 remains a reasonable design-day planning standard (id. at 25).

IV. THE COMPANY'S SENDOUT FORECAST

A. The Company's Sendout Forecast Methodology Is Reviewable, Appropriate and Reliable

The Department is directed by G.L. c. 164, § 69I to review the sendout forecast of each gas utility to ensure that the forecast accurately projects the sendout requirements of the utility's market area. Commonwealth Gas Company, D.T.E./D.P.U. 96-117, at 2 (2000). The Department's regulations require that the forecast exhibits accurate and complete historical data and reasonable statistical projections methods. Id., citing 980 C.M.R. 7.02(9)(b).

The Department evaluates gas sendout forecasts by applying three criteria. First, a forecast is reviewable if it contains enough information to allow a full understanding of the forecasting methodology. Second, a forecast is appropriate if the methodology used to produce the forecast is technically suitable to the size and nature of the utility that produced it. Third, a forecast is reliable if the methodology provides a measure of confidence that its data, assumptions, and judgments produce a forecast of what is most

likely to occur. Commonwealth Gas Company, D.T.E./D.P.U. 96-117, at 2, citing Colonial Gas Company, D.P.U. 93-13, at 2 (1995); Boston Gas Company, 25 DOMSC 116, 127 (1992); The Berkshire Gas Company, 16 DOMSC 53, at 55-56 (1987). As described in further detail below, the Company has demonstrated that its sendout forecast methodology is reviewable, appropriate and reliable.

B. The Demand Forecast

In order to project its customers' total gas demand for the forecast period, the Company formulated individual customer class forecasts of the demand for gas in each service district. These individual customer class forecasts for each district were then added to obtain a Company-wide profile of gas demand over time. This forecasting process was accomplished through the use of econometric forecasting involving individual projections of "aggregate sales"[3] for each customer class (Exh. NGC-1S, at 30). The Company's econometric models projected customer numbers and average usage values per customer based on detailed multiple regression analyses using available historical and projected economic and demographic data applicable to the Company's service territory. Summing each customer class demand forecast for each service division resulted in a Company-wide forecast of aggregate sales demand (id.).

To develop these forecasts, the Company retained DRI-WEFA to prepare district-wide econometric forecasts for the following customer classes: (1) residential heating; (2) residential non-heating; (3) commercial; (4) industrial; and (5) municipal. To perform the required multiple regression analyses, the Company provided annual historical data on aggregate sales, revenues and number of customers by class and operating division,

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[3] Aggregate Sales = Firm Sales + Interruptible Sales + Firm Transportation + Interruptible Transportation + DSM (Exh. NGC-1S, at 30).

and weather data by operating division for the period 1978-2000 (Exh. NGC-1S, at 34). WEFA relied upon projected data for economic and demographic variables based on its own proprietary socioeconomic forecast data base (id. at 32).

DRI•WEFA developed and tested numerous regression specifications. Those specifications that showed statistical significance, explained most of the variation in the dependent variable, presented logical causal relationships, and provided sound forecasts were retained. In general, DRI•WEFA used the following criterion to evaluate whether estimate models are acceptable:

- Each estimated coefficient must have proper signs and magnitude;
- Each estimated coefficient should have statistically a significant "t" value;[4]
- The "F" statistics should be statistically significant;
- The D-W statistic or the "h" statistic should not indicate the presence of serial correlation in the residuals;
- The residual sum of squares and the standard error of the regression should be as low as possible;
- The R-bar squared should be high; and
- The forecasts from an estimated equation should reflect reality.

Exh. DTE 2-5; DTE 1-14; Tr. 1, at 55-56.

Separate econometric models of aggregate sales and number of customers in a service division were developed by regressing each dependent variable (i.e., aggregate sales or number of customers) against certain logical causal independent variables, including population, number of households, fuel prices, employment, cost of gas, and

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[4] If an estimated coefficient does not satisfy the requirements of the first two criteria identified above, the associated variable is dropped and another variable is included. Exh. DTE 2-5.

EDD. In addition, "dummy variables"[5] were used in the regressions to account for structural changes (i.e., reclassification of accounts, timing of retail restructuring) and/or anomalous outliers in the historical data (i.e., abnormally high or low values). Individual models and forecasts were developed for each customer category (residential heating, residential non-heating, commercial, industrial, municipal) and for each of the Company's four operating divisions.

As shown in Appendix B of the DRI•WEFA Report (Exh. NGC-1S, Attachment 4), 56 equations were developed, including 40 equations for the number of customers equation, and an aggregate sales equation for each customer category within each of the Company's four divisions. In addition, for the commercial and industrial sectors in each service division, 16 equations were estimated for the firm sales share equation and a total firm sales and transportation equation.

The econometric forecast prepared by DRI•WEFA estimated reasonable and appropriate models that are unbiased, practical and highly reliable (Exh. DTE 2-5). To confirm the validity of the models, each equation was evaluated with a broad range of statistical criteria including a high adjusted R^2, proper sign and reasonable magnitude of coefficients, significant t-values, absence of serial correlation, a high degree of confidence in overall fit (i.e., F-Statistic), and reasonableness of forecasts. The resulting forecasts were reviewed by NSTAR Gas forecasting and sales staff to assess and confirm their reasonableness (id.). The high reliability of the resulting forecast is demonstrated by

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[5] A dummy variable takes on the value of 1 when the condition is present and 0 when it is not. For example, if a labor strike occurred in 1995, the dummy variable would be 0 for all years except 1995, which would take the value of 1.

the fact that the econometric forecast's estimate of firm sales and transportation for 2001 was within 0.04 percent of actual 2001 throughput (Tr. 1, at 52).

Separate econometric models of aggregate sales and number of customers in a service division were developed by regressing each dependent variable (i.e., aggregate sales or number of customers) against certain logical causal independent variables, including population, number of households, fuel prices, employment, cost of gas, and EDD. In addition, "dummy variables" were used in the regressions to account for structural changes (i.e., reclassification of accounts, timing of retail restructuring) and/or anomalous outliers in the historical data (i.e., abnormally high or low values). Individual models and forecasts were developed for each customer category (residential heating, residential non-heating, commercial, industrial, municipal) and for each of the Company's four operating divisions.

C. Adequacy of the Company's Supply Portfolio

1. Normal-Year and Design-Year Adequacy

The Company has adequate resources to meet its projected sendout requirements for both a normal-and design-year throughout the forecast period (id. at 93-94; Tables VII-2 and VII-3). During a design year, the Company would rely more heavily on liquified natural gas ("LNG") supplemental supply resources to meet its heating season requirements (id.). The Company's supply portfolio analysis indicates that there would be a small (88 BBtu) level of unserved demand in the 2002/2003 heating season under design weather conditions, increasing to 457 BBtu in 2005/2006 (see Tr. 1, at 39-41).[6]

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[6] Beginning on November 1, 2002, the Company will begin service to approximately 850 residential customers living in the Ponds of Plymouth development. These customers were previously served by KeySpan. The peak seasonal load associated with the Ponds of Plymouth is approximately 120,000 MMBtus. The effect of this additional load is to increase the design-year deficiency by

The Company is planning to meet this need without having to procure incremental long-term pipeline or storage capacity. During a design year, the Company would rely more heavily on LNG and supplemental supply arrangements to meet customer requirements (id. at 93). The acquisition of incremental seasonal resources will avoid the Company's need to make long-term commitments for storage and transportation capacity. In addition, recent and planned increases of pipeline capacity and gas supplies in the New England region should ensure that supplemental supplies will be available when needed (id. at 94).

In response to the uncertainty surrounding future levels of transportation migration, which will affect the levels of demand for the Company's firm sales service, the Company has developed a highly flexible supply plan. The supply plan is designed to permit the Company to optimize its portfolio on a continual basis and to meet the needs of its customers under a reasonable range of demand levels without significant cost impacts to customers. Indeed, as described, infra, pursuant to its supply plan, the Company has taken many steps over the past ten years to optimize its resource portfolio and to increase its flexibility to adjust to changes in its load profile.

2. Design-Day Adequacy

The Company has sufficient supply capacity to meet its firm customers' design-day sendout requirements for each year of the forecast period (id. at 95). The elements of the Company's supply portfolio that would be used under design-day conditions for each year of the forecast period are shown in Table VII-4.

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approximately 60,000 MMBtus beginning in the split-year 2002-2003. This minimal incremental design-planning shortfall can be easily served by LNG or other supplemental supplies readily available in the marketplace (Tr. 1, at 40-41).

3. Cold-Snap Analysis

As described above, the Company's winter design standard incorporates a ten-day cold snap that is based on the statistical analysis of the 46-year historical weather record in each of the Company's four divisions (id. at 95). The dispatch of the Company's supply model for design weather conditions demonstrates its ability to supply an extraordinary cold-snap period adequately and reliably (id. at 95-96).

4. Growth-Scenario Analysis

The Company created a Low and High Demand Growth Scenario to reflect altered projections of key economic and demographic variables used in the econometric forecasting models by plus and minus two standard deviations (id. at 65; Exh. DTE 1-54). These scenario forecasts were developed to provide a 95 percent confidence level in the forecast of the key independent "drivers" included in the economic forecast. The sendout results of these two scenarios were then adjusted to design weather conditions to determine the adequacy of the Company's portfolio under these alternative scenarios (Exh. NGC-1S at 97, Tables VII-5 and VII-6). Both the design high-growth and low-growth scenarios show some small deficiencies during the heating season. There are no deficiencies in the design day under either high- or low-growth scenarios (id. at 98).

The design/high growth scenario and design/low growth scenario each show a need for additional gas volumes during the design year. However, these volumes are sufficiently small (86 BBtu to 498 BBtu for the design/high growth scenario, and 154 BBtu to 316 BBtu for the design/low growth scenario) that the shortfalls can be addressed by market-area or citygate supply arrangements throughout the winter season (id. at 97-98).

V. RESOURCE PLANNING PROCESS

A. Standard of Review

The Department reviews a gas company's five-year supply plan to determine whether the plan is adequate to meet projected normal-year, design-year, design-day and cold-snap firm sendout requirements. Commonwealth Gas Company, D.T.E./D.P.U. 96-117, at 38 (2000). The Department's review of reliability, another necessary element of a gas company's supply plan, is included in the Department's consideration of adequacy. Id. at ftnt.14. In order to establish adequacy, a gas company must demonstrate that it has an identified set of resources that meets its projected sendout under a reasonable range of contingencies. Id.

The Department also reviews a gas company's overall supply planning process. An appropriate supply planning process requires the development of an adequate, low-cost and low-environmental-impact resource plan. Id. at 39. Pursuant to this standard, a gas company must establish that its supply planning process enables it to identify and evaluate a full range of supply options, and compare all options on an equal basis. Id., citing Colonial Gas Company, D.P.U. 96-18, at 31; Commonwealth Gas Company, D.P.U. 92-159, at 54; Colonial Gas Company, D.P.U. 93-13, at 51; Boston Gas Company, 25 DOMSC 116, at 202 (1992). The Department also reviews whether a gas company's five-year supply plan minimizes cost. A least-cost supply plan is one that minimizes cost subject to trade-offs with adequacy and environmental impact. Id., citing Commonwealth Gas Company, D.P.U. 92-159, at 55; Colonial Gas Company, D.P.U. 93-13, at 51-52; Boston Gas Company, 25 DOMSC 116, at 203 (1992). As described below, the Company's supply plan and supply planning process meets all of the above requirements.

B. The Company's Supply Planning Process

The Company's supply planning process is designed to develop a resource plan that achieves a reliable, least-cost and minimal environmental impact supply for its customers. The Company's supply planning process provides it with an organized method for analyzing the need for additional resources, identifying new options and reevaluating previous decisions in light of changed circumstances (Exh. NGC-1S, at 71).

NSTAR Gas uses the widely respected SENDOUT linear programming ("LP") optimization model to calculate the least-cost dispatch of existing and incremental resources to meet the Company's load requirements (id. at 69). By using linear programming, SENDOUT automatically takes physical limitations and contract constraints into account, and determines the minimum cost dispatch of the system for a particular period. SENDOUT performs the analysis comprehensively, taking into account thousands of relationships and variables, and performing thousands of iterations until it reaches the least-cost solution (id. at 70).

If the Company has a new supply resource that it wishes to evaluate, the Company will run its Resource Mix module of SENDOUT to determine the impact of the new supply on the total cost of the Company's portfolio (id. at 71). The Resource Mix module is an extension of the basic SENDOUT model and allows optimization of existing and new contract capacity levels by taking into account fixed charges as well as variable costs. This Resource Mix analysis is performed when the Company identifies new potential resources that may be available either to meet unserved load or to assess a potentially lower cost replacement to an existing resource. In the event the Company identifies a number of new resource options, the Resource Mix module will contrast the

total cost impact that each alternative would have on the portfolio and will provide insight into which option or combination of options will best satisfy the Company's least-cost planning requirements (id.).

Upon determining that there is an incremental need for pipeline capacity, storage capacity or peaking capacity (as determined by annual, seasonal, or peak-day deficiencies in the results of model run outputs, or operational pressure problems experienced on the distribution system), the Company considers a wide scope of potential resource options including pipeline supplies, supplemental supplies, DSM resources, and other available alternatives (e.g., sharing arrangements with industrial and electric generation facilities) to satisfy the identified need (id. at 73). Through a request for proposals, the Company then looks to all potential qualified vendors to meet the need on an overall least-cost basis, consistent with the Company's cost and non-cost criteria. The responses to an RFP identify the available commodity resource alternatives and are assessed and evaluated by the Company using several cost and non-cost criteria in order to conduct a preliminary screening. The most appropriate responses are then subject to a more detailed analysis, considering price and non-price factors. In performing this task, the Company also monitors and evaluates its existing supplies, as well as alternative supply options (id. at 74). The Company determines whether sufficient flexibility exists to renegotiate or otherwise adjust the terms and quantities purchased by the Company from existing resources in order to make least-cost supply planning decisions (id.).

The Company generally evaluates new resources based on cost and non-price characteristics, including reliability, availability date, diversity of supply, flexibility, financial viability and other relevant ancillary criteria that may apply to a particular

supply source (id. at 75). The goal of the Company's cost analysis is to determine, for each resource option in question, the impact on the Company's total portfolio cost over the planning horizon. Because each resource alternative can differ significantly in nature and pricing components, the Company employs the SENDOUT optimization model to choose and size an optimal mix of resources in a way that minimizes the cost of the portfolio, consistent with operational constraints (id. at 74).

In addition to the Company's cost analysis, the Company analyzes a number of non-cost attributes of any resource alternative. Included among these are reliability, diversity, flexibility and financial viability, which are all critical factors to the Company's development of a balanced portfolio.

Reliability is a crucial qualitative factor that refers to the ability of a supplier to fulfill commitments based on its past performance, its operational strengths and its offered terms and conditions (id. at 75). With respect to resource planning, reliability refers to the degree of assurance that a resource will be available on demand for use in meeting the Company's demand requirements. A supplier's willingness and ability to provide warranties or supply assurances commensurate with the level of "firmness" sought is an indicator of reliability, as is a supplier's financial strength.[7]

Supply Diversity refers to a potential supplier's ability to access various producing basins, availability of resources or reserves, pipeline systems and/or network location and access, and firm transportation and storage capacity. The Company's goal is

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[7] Financial strength is measured through an assessment of an historical and projected allocation of financial resources that demonstrate a potential supplier's competency as a long-term natural gas supplier and a capability of meeting all commitments. In addition, the Company's accounting department provides an in-depth analysis of each potential supplier's past and present overall financial strength (id. at 75).

to maintain a supply portfolio that is structured so that a supply or transportation disruption in a particular area will have a minimal impact on the Company's overall supply situation at a given time (id. at 75-76). In terms of the overall portfolio, diversity is achieved by obtaining supplies from multiple access areas, such as the U.S. Gulf coast (both on-and off-shore) and Canadian supply basins, and using multiple pipeline routes and a mix of market area storage and peak-shaving facilities.

Flexibility is another important non-price factor that is evaluated by the Company. Flexibility refers to the ability of a potential supplier to adjust supplies to match changing demands caused by temperature or sendout conditions. Because the Company's demand portfolio exhibits a high degree of temperature sensitivity and seasonality, the portfolio is composed of a mix of resources that are compatible with varying system demands, such as pipeline non-notice services, market-area storage and peak-shaving facilities (id. at 76). The Company determines the characteristics of the sales demands being served, and builds its portfolio to provide the best match of the profile of aggregate sales demand.

The Company identifies and evaluates DSM on an equal basis with available supply-side options, using the same criteria, data and standards for testing demand-side resources as it uses to evaluate supply side resources (id.). Generally, the Company offers a mix of market driven regional and Company specific programs that are similar to those in the Department-approved Settlement Agreement in Commonwealth Gas Company, D.P.U. 95-114 (1996). The savings generated by the approved DSM activities have provided cost-effective resources in an optimized resource portfolio.

C. Application of the Process

The Company continually seeks out ways to reduce the cost of serving its firm sales demand without compromising the reliability of its services to firm customers. Since the implementation of FERC Order 636 in 1993, the Company has used capacity release, off-system sales, and portfolio asset management strategies to manage its supply portfolio in an efficient and cost-effective manner (id. at 79). During 1999 and 2000, the Company generated $4.5 million and $6.7 million, respectively, in mitigation margins through such activities (id.).

The Company also regularly evaluates new services, uses for existing resources, and the possible enhancement of existing resources in a continual effort to maintain reliability and reduce costs (id.). To this end, the Company has evaluated several opportunities for incremental pipeline service acquisitions and has undertaken several actions that have resulted in enhanced reliability of firm services and, in many cases, either reduced overall costs of service to firm customers, or provided the enhancements at lower costs than had the Company contracted for new service requiring the need to construct new pipeline facilities (id.). The record identifies the following examples of such Company actions:

1. Tennessee Gas Pipeline Contract Restructuring

The Company had several contracts on the Tennessee system that were set to expire on November 1, 2000. In evaluating what action to take concerning these contracts, the Company evaluated the potential for: (1) eliminating contracts no longer necessary to meet the needs of firm customers; (2) reducing the term of contracts consistent with the Department's order in Gas Unbundling, D.T.E. 98-32-B (1999);

(3) reducing overall costs associated with needed resources; and (4) achieving increased flexibility of the Company's existing resources (id. at 80). The Company negotiated with Tennessee directly, and with the New England Customer Group, accomplishing the following changes to the Company's Tennessee contract portfolio:

- Renewal of longhaul 365-day transportation contracts to transport gas from production areas to the Company's citygates or to underground storage facilities for a three-year period to coincide with the Department's three-year transition period.
- Extend Tennessee market-area FS storage contracts with associated transportation from storage to the Company's citygates. The contracts enable the Company to draw on needed seasonal supplemental gas and to deliver it to Massachusetts on a firm basis. Tennessee's FS storage rates are among the most cost-effective of all storage providers.
- Buyout of a Tennessee production area shorthaul contract because it could be eliminated without changing the Company's firm citygate deliverability. The Company will save approximately $762,000 as a result of this buyout.
- Shorten the term from March 31, 2013 to October 31, 2003 of a Tennessee contract used to deliver quantities of gas from a third-party storage facility to the Company's citygates, reducing the Company's costs by approximately $2,950,000.

Id. at 81-82.

- The Company's Tennessee FT-A transportation and FS storage contract notice period was to have ended on November 1, 2002, at which point (absent a termination notice) the contracts would have automatically been extended for five-year terms. In August 2002, the Company negotiated three-year extensions of these contracts, with a new termination date of November 1, 2006. Through the negotiation process, the Company was able to preserve its two short-term renewal options that had been obtained in a previous rate case settlement, leaving them available for use at a later date (Tr. 1, at 15-16).

- In October 2002, the Company reached an agreement with Tennessee Gas pipeline to convert its two NET contracts to the FT-A rate schedule. The conversion of these contracts is expected to save nearly $10 million over the terms of the contracts (id. at 21).

2. Termination of Algonquin Gas Transmission Contract

Pursuant to a rate settlement with Algonquin, the Company terminated Contract 86005 because it did not provide primary firm receipt and delivery points (Exh. NGC-1S,

at 82-83). Termination of this contract resulted in annual demand charge savings of approximately $213,000, while maintaining the existing level of firm deliverability to the Company's Algonquin citygates (id. at 83).

3. Termination of Texas Eastern Contract

The Company terminated its 365-day Texas Eastern contract, which was used to transport gas from the production area to downstream interconnecting pipelines, without affecting citygate deliverability, saving annual demand charges of $689,500. The Company served notice of termination on April 1, 1998, and the contract will terminate effective April 1 2003 (five-year notice provision) (id. at 83).

4. Extension of Dominion Storage Contract

The Company extended a storage and transportation agreement with Dominion Transmission ("DTI"), due to expire on March 31, 2001 until March 31, 2004. DTI issued a termination notice to the Company, but the Company was able to negotiate this extension to maintain one of the most cost-effective storage services available to the Company. The contract also fills an important role as a seasonal supplemental resource and is necessary for pipeline balancing purposes (id. at 84).

5. Termination of National Fuel Contract

The Company provided notice to National Fuel Gas that it had elected to terminate its transportation contract with that pipeline, effective March 31, 2003. Termination of the contract will not affect citygate availability because the contract's upstream transportation service does not directly connect with the Company's service territory (Tr. 1, at 16-17).

VI. CONCLUSION

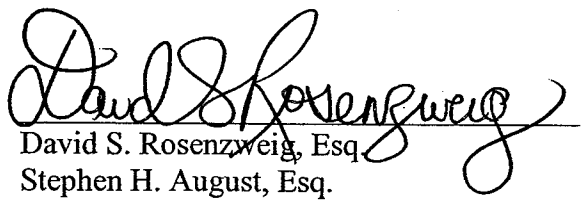
The probabilistic cost/benefit analysis used by the Company to develop its planning standards demonstrates that it has developed and consistently applied an appropriate methodology to select its normal-year, design-year and design-day standards which is based on an adequate assessment of the appropriate level of reliability as well as an assessment of the tradeoffs between cost and reliability. Colonial Gas Company, 23 DOMSC 351, at 369 (1991). Accordingly, the Company has demonstrated that its normal-year, design-year and design-day standards are reviewable, appropriate and reliable. In addition, the Company's use of multiple regression analysis to forecast its gas sendout requirements over the forecast period represents a reasonable forecast methodology which is reviewable, appropriate and reliable.

Accordingly, for all of the reasons stated above, the Company requests that the Department approve its Long-Range Forecast and Resource Plan submitted pursuant to G.L. c. 164, § 69I.

Respectfully submitted,

NSTAR GAS COMPANY

By its attorneys,



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